# DEFENSE ACQUISITION REFORM: A HALF-CENTURY AND STILL COUNTING

A thesis presented to the Faculty of the U.S. Army Command and General Staff College in partial fulfillment of the requirements for the degree

MASTER OF MILITARY ART AND SCIENCE General Studies

by

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#### 14. ABSTRACT

There has been a tremendous amount of research and associated reports assessing Department of Defense (DoD) acquisitions of major weapon systems over the past half century. More specifically, the problems associated with the process and the need for reform. The product of this has been a constant state of acquisition reform, the implementation of one reform initiative after another over the past half century.

Despite these efforts, the DoD is still working diligently and expending a tremendous amount of time and resources to reform the process of acquiring major weapon systems. At the present time, the DoD acquisition community is implementing Better Buying Power 2.0, which is one of the most extensive acquisition reform initiatives to date.

Even with the DoD implementing this extensive acquisition reform effort, the calls from Congress to assess and fix the acquisition process are as loud as ever. Fueling the calls from Congress, the responsibility to judiciously utilize taxpayer dollars, recover from 10 years of war, and react to a dynamic and every changing security environment. The time is now, for an efficient and effective acquisition system to develop and deliver more complex weapon systems, in an era of negative program performance and reduced budgets.

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| any other governmental agency. (References to this study should include the foregoing statement.)   |

## **ABSTRACT**

DEFENSE ACQUISITION REFORM: A HALF-CENTURY AND STILL COUNTING, by Maj Jason R. Gerard, 87 pages.

There has been a tremendous amount of research and associated reports assessing Department of Defense (DoD) acquisitions of major weapon systems over the past half century. More specifically, the problems associated with the process and the need for reform. The product of this has been a constant state of acquisition reform, the implementation of one reform initiative after another over the past half century.

Despite these efforts, the DoD is still working diligently and expending a tremendous amount of time and resources to reform the process of acquiring major weapon systems. At the present time, the DoD acquisition community is implementing Better Buying Power 2.0, which is one of the most extensive acquisition reform initiatives to date.

Even with the DoD implementing this extensive acquisition reform effort, the calls from Congress to assess and fix the acquisition process are as loud as ever. Fueling the calls from Congress, the responsibility to judiciously utilize taxpayer dollars, recover from 10 years of war, and react to a dynamic and every changing security environment. The time is now, for an efficient and effective acquisition system to develop and deliver more complex weapon systems, in an era of negative program performance and reduced budgets.

#### **ACKNOWLEDGMENTS**

Setting out to accomplish a project of this magnitude requires three key elements, guidance, assistance, and support. I would not have attempted, nor could I could have completed, this thesis without these three elements. I felt compelled to take a moment to acknowledge the key people who provided an abundance of critical guidance, assistance, and support throughout this process. At an absolute minimum, they deserve my gratitude articulated in the words that follow.

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# **ACRONYMS**

CRS Congressional Research Service

DAG Defense Acquisition Guidebook

DAS Defense Acquisition System

DAU Defense Acquisition University

DoD Department of Defense

DoDI Department of Defense Instruction

GAO Government Accountability Office

JCIDS Joint Capabilities Integration and Development System

PPBE Planning, Programming, Budgeting and Execution

QDR Quadrennial Defense Review

U.S. United States

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#### CHAPTER 1

#### INTRODUCTION

The call for acquisition reform is not a recent revelation by senior leaders of the United States (U.S.) Government. So what makes this a topic worth researching and reading about? It is a problem that continues to plague our Nation and the Department of Defense (DoD), and ultimately erodes our ability to equip our military in defense of our nation. This thesis will look at roughly a half century of constant calls and actions to implement acquisition reform in the DoD to the process used to procure major weapon systems. "Acquisition Reform efforts have not consistently yielded a process/system that delivers products faster, better, or cheaper." The Government Accountability Office (GAO) has had the acquisition of weapon systems on their high-risk list since 1990. Acquisition reform continues to be a priority at the highest levels. Each President, from John F. Kennedy through our 44th and current President, Barrack H. Obama, has made acquisition reform a priority during their respective administrations. A portion of President Obama's speech on May 22, 2009 at the signing of The Weapons Systems Acquisition Reform Act communicates this very succinctly and eloquently:

Last year, the Government Accountability Office, or the GAO, looked into 95 major defense projects and found cost overruns that totaled \$295 billion. Wasteful spending comes from exotic requirements, lack of oversight, and indefensible no-

<sup>&</sup>lt;sup>1</sup>Col Peter Eide and Col Charles D. Allen, USA (Retired), *The More Things Change, Acquisition Reform Remains the Same*, A Publication of the Defense Acquisition University, January 2012, http://www.carlisle.army.mil/usawc/dclm (accessed September 23, 2013).

<sup>&</sup>lt;sup>2</sup>United States Government Accountability Office, GAO-13-283, *High Risk Series: An Update* (Washington, DC: Government Accountability Office, February 2013), http://www.gao.gov/assets/660/652133.pdf (accessed April 29, 2014).

bid contracts that don't make our troops or our country any safer. To put this in perspective, these cost overruns would have paid our troops' salaries and provided benefits for their families for more than a year. At a time when we're fighting two wars and facing a serious deficit, this is inexcusable and unconscionable. As Secretary Gates has said, one dollar of waste in our defense budget is a dollar we can't spend to support our troops, or prepare for future threats, or protect the American people. Well, it's finally time to end this waste and inefficiency.<sup>3</sup>

This chapter first addresses the problem statement for this thesis. It then covers the primary and associated secondary research questions. These questions are significant as they are the tool used throughout this thesis to answer the problem statement and provide conclusions and recommendations. These research questions are followed by a description of assumptions, definition of terms, limitations, and delineations. To help provide an understanding of the acquisition process, a brief overview of the systems used will be given. Next, is a detailed review of six major factors that magnify the importance of reforming the acquisition of major weapon systems. These six factors provide hard-hitting significance to the importance of this research. The chapter concludes with a summary and introduction to the next chapter.

## Problem Statement

This research will explore defense acquisition reform. There has been extensive research and reports assessing DoD acquisition of major weapon systems over the past half a century, more specifically, the problems with our defense acquisition process and the need for reform. There have been numerous efforts at various levels over the past half century to improve the process for acquiring major weapon systems. Previous research

<sup>&</sup>lt;sup>3</sup>Office of the Press Secretary, Remarks by the President at Signing of The Weapons Systems Acquisition Reform Act, May 22, 2009, http://www.whitehouse.gov/the\_press\_office/Remarks-by-the-President-at-signing-of-the-Weapons-Systems-Acquisition-Reform-Act/ (accessed April 21, 2014).

has shown mixed results on what is plaguing defense acquisitions and if the long history of reform efforts have been successful. The present time finds the DoD acquisition community amidst yet another acquisition reform initiative. There are six major factors magnifying this problem that makes this research significant and will be discussed in detail later in this chapter.

# Primary Research Question

Why is the DoD still attempting to reform the process used to acquire major weapon systems after a half a century of efforts?

## Secondary Research Questions

What drove the need for acquisition reform?

What is the history of acquisition reform?

What are some major acquisition reform efforts?

What are the similarities and differences with the reform efforts?

## Assumptions

That the programmatic information contained in various reports and documents is accurate. The programmatic information feeds into the research but the primary information used to answer the research questions are the major acquisition assessments.

#### **Definitions**

Acquisition: "Acquisition is a broad term that applies to more than just the purchase of an item or service; the acquisition process encompasses the design,

engineering, construction, testing, deployment, sustainment, and disposal of weapons or related items purchased from a contractor.<sup>24</sup>

<u>Major Acquisition Reform Effort</u>: For the purposes of this thesis, the term major acquisition reform effort applies to acquisition reform assessments, reports, committees, panels, research groups, and initiatives.

Major Weapon System: "The term weapon system-or often major weapon systems or major programs-refers to technically complex items such as aircraft, missiles, ships, and tanks. A weapon system includes not only the major item of equipment itself but the subsystems, logistical support, software, constriction, and training needed to operate and support it."

Reform: According to Merriam-Webster Dictionary, it is to improve (someone or something) by removing or correcting faults, problems, etc.<sup>6</sup>

## Limitations

The major limitations to this research are time and information. The topic of acquisition reform is vast in regards to time and information with the period of this paper alone spanning over 50 years and parts of six decades. The major output of such an expansive period is a tremendous amount of information, too much information to cover

<sup>&</sup>lt;sup>4</sup>Moshe Schwartz, *Defense Acquisitions: How DoD Acquires Weapons Systems* (Washington, DC: Congressional Research Service, January 2, 2013), https://www.fas.org/sgp/crs/natsec/RL34026.pdf (accessed April 27, 2014).

<sup>&</sup>lt;sup>5</sup>Ronald J. Fox, *Defense Acquisition Reform, 1960-2009 An Elusive Goal* (Washington, DC: Center of Military History, 2011).

<sup>&</sup>lt;sup>6</sup>Merriam-Webster Dictionary, "reform," http://www.merriam-webster.com/dictionary/reform (accessed September 29, 2014).

in this format due to the time available to conduct the research and the length restriction of this thesis. In order to address this limitation, a select few acquisition reform efforts will be looked at over this period. Specific reform efforts were selected at points to provide data coverage throughout the 50-year period. The acquisition reform efforts selected were major assessments that captured the full scope of reform at that time and allows for comparison against each other. The process used to select, compare, and analysis these acquisition reform efforts will be covered in chapter 3.

Two additional limitations to this research that are worth noting in the areas of program reporting and subjectivity. Not all information pertaining to the acquisition of major weapon systems is consistent. A prime example of this is the estimating and reporting of program costs. Dr. J. Ronald Fox, former Assistant Secretary of the Army and member of the Harvard Business School faculty, provides a great description of this limitation. "One result of the amorphous nature of the term weapon system is that there is no general agreement among DoD, Congress, Office of Management and Budget, and U.S. Government Accountability Office (GAO) on what is and is not included in a cost estimate." This can lead to data that is inconsistent and inconclusive. These inconsistencies can lead to difficulty in reporting progress, true progress of acquisition reform efforts. To address this limitation, this thesis will not compare program to program, but primarily compare the areas in which reform efforts are targeting. An example of this would be the experience and training of acquisition professionals.

<sup>&</sup>lt;sup>7</sup>Ronald J. Fox, *Defense Acquisition Reform, 1960-2009: An Elusive Goal* (Washington, DC: Center of Military History, United States Army, 2011), ix.

The second limitation pertaining to this topic comes in the form of subjectivity. The call for acquisition reform and what needs to be done is not black and white and is viewed very different by individuals and groups. The review of multiple acquisition reform efforts by different organizations brings diversity and different perspectives regarding acquisition reform.

## **Delimitations**

The only major delimitation identified is the inability to report some numbers and information due to the security classifications of some major weapon systems programs. As mentioned before, this thesis will not compare program to program, but primarily compare the areas in which reform efforts are targeting, which address the issue of security classifications.

# Acquisition Process

In order to understand and appreciate the enormity of the task of reforming the acquisition of major weapon systems, it is important to know more about the systems involved. It is a common mistake to think that the Defense Acquisition System (DAS), a very complex system in its own right, is the only process involved in acquiring major weapon systems. It is actually only one of three very complex systems used to acquire major weapon systems. The three primary decision-making support systems the DoD uses are the Joint Capabilities Integration and Development System (JCIDS), the Planning, Programming, Budgeting, and Execution Process (PPBE), and the DAS.8 The

<sup>&</sup>lt;sup>8</sup>Defense Acquisition University, *Defense Acquisition Guidebook, Your Acquisition Policy and Discretionary Best Practice Guide*, https://dag.dau.mil/Pages/Default.aspx (accessed April 17, 2014).

Congressional Research Service (CRS) in a report to Congress in January of 2013 addressed their use. "As set forth by statute and regulation, from concept to deployment, a weapon system must go through a three-step process of identifying a required (needed) weapon system, establishing a budget, and acquire the system,"

The Defense Acquisition Guidebook (DAG), located on the Defense Acquisition University (DAU) website summarizes the three systems well. "The three systems provide an integrated approach to strategic planning, identification of needs for military capabilities, systems acquisition, and program and budget development." Figure 1 provides a simple graphic representation of the three interrelated and interdependent decision support systems used to acquire major weapon systems. In addition to this top-level overview, the following paragraphs will provide a detailed description of each of the three complex support systems involved in the acquisition of major weapon systems.

<sup>&</sup>lt;sup>9</sup>Schwartz, Defense Acquisitions: How DoD Acquires Weapons Systems.

<sup>&</sup>lt;sup>10</sup>Defense Acquisition University, *Defense Acquisition Guidebook*.

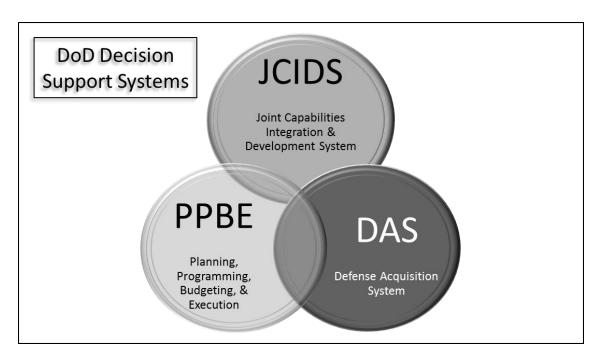


Figure 1. DoD Decision Support Systems

Source: Created by author.

The first decision support system is the JCIDS. In the most basic definition, the JCIDS is used to identify capability gaps and their associated requirements. The DAG provides a more detailed and effective summary of each of these decision support systems that will provide further understanding of the process and complexity of acquiring major weapon systems. The DAG provides the following overview of JCIDS: "The primary objective of the JCIDS process is to ensure the capabilities required by the joint warfighter to successfully execute the missions assigned to them are identified with their associated operational performance criteria." The DAG also explains how JCIDS supports the acquisition process by providing validated capability needs and associated

<sup>&</sup>lt;sup>11</sup>Ibid.

performance criteria that is needed to acquire major weapon systems.<sup>12</sup> Warfighters use these capabilities to support the National Security Strategy, the National Defense Strategy, and the National Military Strategy.

The second decision support system is the PPBE. In the most basic definition, the PPBE is for allocating resources and budgets used to procure major weapon systems. It consists of four stages, PPBE. The DAG provides the following overview of PPBE: "The purpose of the PPBE process is to allocate resources within the Department. In the PPBE process, the Secretary of Defense establishes policies, strategy, and prioritized goals for the Department, which are subsequently used to guide resource allocation decisions that balance the guidance with fiscal constraints." One of the challenges with the PPBE is that often does not line up with decisions that need to be made by program managers running programs on a day-to-day basis. The GAO addressed this very point in an October 2013 report, "The budget process forces funding decision to be made well in advance of program decisions, which encourages undue optimism about program risks and costs." 14

The third decision support system is the DAS. As previously mentioned this decision support system often receives most of the attention when discussing the acquisition of major weapon systems and acquisition reform efforts. In the most basic

<sup>&</sup>lt;sup>12</sup>Ibid.

<sup>&</sup>lt;sup>13</sup>Ibid.

<sup>&</sup>lt;sup>14</sup>Government Accountability Office, *Defense Acquisitions: Where Should Reform Aim Next?* Testimony before the Committee on Armed Services, House of Representatives, October 29, 2013, http://gao.gov/assets/660/658615.pdf (accessed October 30, 2013).

definition, the DAS is the process used to develop and procure the major weapon systems. The DAG provides the following overview of DAS: "The Defense Acquisition System is the management process for all DoD acquisition programs." The DAG goes on to explain this is an event-based process in which programs proceed through reviews and decision points from phase to phase in the acquisition process. The DAS process receives the most attention but all three systems must be looked at when trying to understand and more difficultly, reform the acquisition process.

The preceding explanations of the three decision support systems only scratch the surface, as an entire paper could be dedicated to describing each one of these systems. For the context of this research, it is enough to provide important background information into the complexity of the interrelated and interdependent decision support systems used to acquire major weapon systems. The CRS emphasized the complexity of the system and concerns of the House Armed Services Committee with the following:

DOD's acquisition system is highly complex (see Appendix A), and it does not always produce systems that meet estimated cost or performance expectations. Congress has been concerned with the structure of the defense acquisition system for many years. For example, the House Armed Services Committee's report of the FY2007 defense authorization bill stated: Simply put, the Department of Defense (DOD) acquisition process is broken. The ability of the Department to conduct the large scale acquisitions required to ensure our future national security is a concern of the committee. The rising costs and lengthening schedules of major defense acquisition programs lead to more expensive platforms fielded in fewer numbers. The committee's concerns extend to all three key components of the Acquisition process including requirements generation, acquisition and contracting, and financial management.<sup>17</sup>

<sup>&</sup>lt;sup>15</sup>Defense Acquisition University, *Defense Acquisition Guidebook*.

<sup>&</sup>lt;sup>16</sup>Ibid.

<sup>&</sup>lt;sup>17</sup>Schwartz, Defense Acquisitions: How DoD Acquires Weapons Systems.

Figure 2, the Integrated Defense Acquisition, Technology, and Logistics Life Cycle Management Chart is not presented to be read, but to visually depict and communicate the complexity of the three decision support systems and what it takes to acquire major weapon systems. This figure also serves as an indicator to the enormous challenge of reforming the process used in the acquisition of major weapon systems.

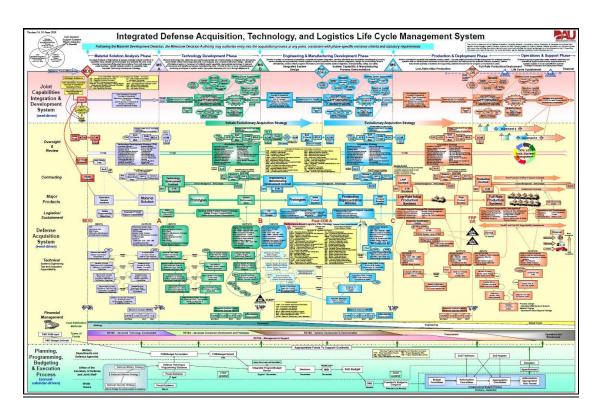


Figure 2. Integrated Defense Acquisition, Technology, and Logistics Life Cycle Management Chart

Source: Defense Acquisition University, "Integrated Life Cycle Chart," https://ilc.dau.mil/ (accessed November 7, 2013).

# Significance of Study

The U.S. Government, and more specifically the DoD acquisition community, is at a crucial point. Acquisition reform has been stressed and attempted for the last half century, but the call for reform is still as loud as ever. There are numerous factors (some of which have spanned the entire half a century of acquisition reform and some more recent), that make acquisition reform more vital than ever. Six key factors have been selected and will be described in the preceding paragraphs. They highlight the significance of this research regarding acquisition reform. The six factors are the judicious use of taxpayer dollars, a rapidly changing and dynamic environment, the complexity of current major weapon systems, recovering from 10 years of war, the current fiscal environment, and current program performance. The combination of these six factors, make successful acquisition reform more vital than ever in our history.

Several of these critical factors were addressed in the DoD's January 2012 report titled, Defense Budget Priorities and Choices:

We developed a defense strategy that transitions our defense enterprise from an emphasis on today's wars to preparing for future challenges, protects the broad range of U.S. National security interests, advances the Department's efforts to rebalance reform, and supports the national security imperative of deficit reduction through a lower level of funding. The Defense Department's current strategic guidance was driven by the approaching end of a decade of war, a changing technological and geopolitical landscape, and the national security imperative of deficit reduction. The Department's investment choices for FY 2013-2107 were derived from this guidance and conform to the 2011 Budget Control Act's requirement to reduce Defense Department future expenditures by approximately \$487 billion over the next decade or \$259 billion over the next five years. <sup>18</sup>

<sup>&</sup>lt;sup>18</sup>Department of Defense, *Defense Budget Priorities and Choices*, January 2012, http://www.defense.gov/news/Defense\_Budget\_Priorities.pdf (accessed April 26, 2014).

The judicious use of taxpayer dollars is the first of six major factors contributing to the significance of acquisition reform that will be covered. As stewards of U.S. taxpayer dollars, the government has an obligation to judiciously plan and use those dollars. This particular factor is not a new one; the government has always had this obligation to its citizens. Throughout the past half century of acquisition reform the government and more specifically for this research, the DoD acquisition community has come under fire for not judiciously using taxpayer dollars. Concern for this very issue was addressed in a 1970 Government Accounting Office report to Congress:

The Federal Government has not been adequately controlling military spending. As a result, substantial unnecessary funds have been spent for the acquisition of weapons systems and other military hardware. Mismanagement and laxity of control over this expensive program are creating heavy burdens for every taxpayer.<sup>19</sup>

More recently, President Obama referenced then Defense Secretary Gates comments on the importance of using every dollar wisely in a speech, "As Secretary Gates has said, one dollar of waste in our defense budget is a dollar we can't spend to support our troops, or prepare for future threats, or protect the American people."<sup>20</sup>

The world as we know it now presents our nation and military forces around the world with an ever changing and dynamic operating environment. A rapidly changing environment is the second of six major factors contributing to the significance of acquisition reform. Our military has always responded to changes in conditions and the environment but the pace of that change is at an all-time high. Nowhere has this been

<sup>&</sup>lt;sup>19</sup>Comptroller General of the United States, *Status of the Acquisition of Selected Major Weapon Systems* (Washington. DC: Government Accounting Office, February 6, 1970), http://www.gao.gov/assets/120/112000.pdf (accessed November 1, 2013).

<sup>&</sup>lt;sup>20</sup>Office of the Press Secretary.

more evident than our operations in Iraq and Afghanistan over the past decade. This major factor is highlighted in the 2014 *Quadrennial Defense Review (QDR)*. "The U.S. faces a rapidly changing security environment. Challenges to our many allies and partners around the globe remain dynamic and unpredictable. Modern warfare is evolving rapidly, leading to increasingly contested battlespace in the air, sea, and space domains—as well as cyberspace." With the operating environment changing so quickly, it is vital our nation has an acquisition process that enables the fielding of systems to address these ever-changing and dynamic threats. The current system has made progress and shown success at times but still struggles to do this overall.

Throughout the period this research covers, there has been another trend adding to the need for acquisition reform, that of increased complexity of major weapon systems and the rate at which the technology is changing and improving. This is the third of six major factors contributing to the significance of acquisition reform. The increases in technology at such a rapid rate add to an already complex task of acquiring major weapon systems. It feeds to an already complex task of integrating systems and ensuring interoperability with other weapon systems. The complexity of new systems is captured well in an entry of a 2013 CRS report, "The contract, awarded to Orville and Wilbur Wright, is noteworthy for its brevity (less than 10 pages), focusing on engineering requirements and contractor compliance." Fast forward in time, the rapid change in

<sup>&</sup>lt;sup>21</sup>Department of Defense, *Quadrennial Defense Review Report* (Washington, DC: Government Printing Office, 2014).

<sup>&</sup>lt;sup>22</sup>Moshe Schwartz, *Twenty-five Years of Acquisition Reform: Where Do We Go from Here?* (Washington, DC: Congressional Research Service, October 29, 2013), https://www.fas.org/sgp/crs/natsec/RL34026.pdf (accessed April 27, 2014).

technology from then to now, coupled with a heavily regulated process that has drastically increased the complexity of contracts. The acquisition community presently deals with contracts that are similar to the second contract referenced in the same CRS report. "In contrast, according to a Boeing official, the original signed contract for the KC-46 tanker that was awarded to Boeing in February 2011 consisted of 1,233 pages when originally signed-70 to the basic contract, with references to 27 attachments consisting of an additional 1,163 pages."<sup>23</sup>

The U.S. Government and the DoD must address equipment repairs, upgrades, and replacements after the toll of multiple wars over 10 years. This challenge, a product of any major conflict and not uncommon in our history, is the fourth of six major factors contributing to the significance of acquisition reform. War takes a toll on equipment, especially the harsh environments of Iraq and Afghanistan and must be addressed. Tough decisions will have to be made on where to focus resources on such things as equipment repairs, upgrades, replacements, and retirements. This too will stress the process of major weapon systems acquisition, which is already facing many tough decisions, and implementation of extensive and needed acquisition reform. The complexity of this challenge will be further magnified by the next major factor that will be discussed, the current fiscal environment. This will present a challenge, not uncommon or new, to recovering from 10 years of war. "After every major conflict, the U.S. military has experienced significant budget draw downs. The total U.S. defense spending will drop

<sup>23</sup>Ibid.

about 22% from its peak in 2010. By comparison, the 7 years following the Vietnam and Cold War peak budgets say a similar magnitude of decline."<sup>24</sup>

The current DoD fiscal environment is the fifth of six major factors contributing to the significance of acquisition reform. As the government faces sequestration and an ever-diminishing budget, the DoD must be able to deliver weapon systems within cost and schedule while meeting the performance requirements. Our defense acquisitions process has struggled to achieve this. The GAO stressed this very point in a recent report, "DoD's declining budgets and the impact of sequestration have lent additional impetus to reduce the costs of weapons." The reduced DoD budgets projected for the next several years will mean fewer dollars for the acquisition of major weapon systems. The reduced budgets are also forcing a drawdown in military forces. Fewer dollars and military members amplify the need for acquisition reform and the need to do the most with less.

According to a report by the U.S. Congress Congressional Budget Office in March of 2013, the DoD will have to reduce its forces and activities more each year through 2021 to remain within the budget caps set by the Budget Control Act of 2011. <sup>26</sup> The report goes on to state that DoD can accomplish reduced costs by reducing the number of military units or by reducing the funding to equip and operate the units. This ties directly into and magnifies the problem with the previously mentioned major factor of recovering from 10 years of war. There will be less available to try to achieve this. The

<sup>&</sup>lt;sup>24</sup>Department of Defense, *Defense Budget Priorities and Choices*.

<sup>&</sup>lt;sup>25</sup>Schwartz.

<sup>&</sup>lt;sup>26</sup>Congressional Budget Office, *Approaches for Scaling Back the Defense Department's Budget Plans*, March 2013, http://www.cbo.gov/sites/default/files/cbofiles/attachments/43997\_Defense\_Budget.pdf (accessed April 26, 2014).

Congressional Budget Office report presents four different proposed options to accomplish the cuts with different combinations of cuts to acquisitions, operations, and force structure.<sup>27</sup> With these looming cuts, the DoD cannot afford the current trends in major weapon systems costs and schedules.

The current performance of major weapon systems is the sixth and final factor that will be covered, adding to the significance of acquisition reform. The GAO recently reported some turns in the cost trends on current major weapon systems acquisitions that provide some optimism for the future in a March 2013 report.<sup>28</sup> Overall, the numbers still represent trends in the wrong direction. In a later GAO report in October of 2013 the overall DoD numbers on programs for 2012 was reported, "The cost growth of DoD's 2012 portfolio of weapons systems about \$411 billion and schedule delays average more than 2 years." The numbers here are mixed, the October 2013 GAO report goes on to state 39 percent of programs have had unit cost growth at or exceeding 25 percent but cost growth overall did decline from 2011 to 2012. The reality is much has been done, but much is left to do. Given the length of major weapon system acquisitions, changes and initiatives will take time to show true results.

<sup>&</sup>lt;sup>27</sup>Ibid.

<sup>&</sup>lt;sup>28</sup>Government Accountability Office, *Defense Acquisitions: Assessments of Selected Weapons Programs* (Washington, DC: Government Accountability Office, March 2013), http://www.gao.gov/assets/660/653379.pdf (accessed September 22, 2013).

<sup>&</sup>lt;sup>29</sup>Government Accountability Office, *Defense Acquisitions: Where Should Reform Aim Next?* 

# Summary and Conclusions

The DoD needs an efficient and effective system to judiciously utilize taxpayer dollars, recover from 10 years of war, react to a dynamic and every changing environment with more complex weapon systems development in an era of reduced budgets and negative program performance. After a half a century, the DoD acquisition community is still working diligently and expending a tremendous amount of time and resources to reform the process of acquiring major weapon systems. This topic has always been significant but today, for the reasons outlined previously in this chapter, it is more significant than ever before. Is this a moving target or is DoD in the same spot it was in the 1960s? The next chapter will provide a vast amount of information regarding the challenges of major weapon systems acquisitions and associated reform efforts over the past half century.

#### CHAPTER 2

#### LITERATURE REVIEW

The one un-debatable problem with acquisition reform is that it has been taking place for over 50 years without a concrete resolution. There is not a time during this period in which some form of acquisition reform was not taking place. There has been extensive research and reports assessing DoD acquisition of major weapon systems over the past half a century. More specifically, the problems with our defense acquisition and the need for reform. There have been numerous efforts at various levels over the past half century to improve the process for acquiring major weapon systems. The CRS solidifies this very point in a January 2013 report titled, "Defense Acquisitions: How DOD Acquires."

Weapon Systems and Recent Efforts to Reform the Process, "Over the decades, congressional oversight has focused on many aspects of the acquisition process, from 'micro-level' practices, such as characteristic of a particular contract, to 'macro-level' practices, such as management and execution of the Joint Strike Fighter and other Major Defense Acquisition Programs." 30

Previous research has shown mixed results on what is plaguing defense acquisitions and if the long history of reform efforts have been successful. The six factors first introduced in chapter 1, judicious use of taxpayer dollars, a rapidly changing and dynamic environment, complexity of current major weapon systems, recovering from 10 years of war, the current fiscal environment, and current program performance, highlight

<sup>&</sup>lt;sup>30</sup>Schwartz, Defense Acquisitions: How DoD Acquires Weapons Systems.

the critically of finally determining what is plaguing defense acquisitions. According to Colonel Peter K. Eide, United States Air Force and Colonel Charles D. Allen, United States Army Retired, "For over 60 years, the department of Defense has attempted to fix its weapon systems procurement without success." A review of the literature presented in this chapter will provide more context and background to the enormity of the time, complexity, and challenges associated with acquisition reform over the past half century.

This chapter covers the review of literature pertaining to defense acquisition of major weapon systems over the past half century and associated acquisition reform efforts. In order to cover such a vast time and pool of information, the review of literature focuses on the origin of acquisition reform, overall trends, major sources of information, key documents and latest DoD reform initiative in order to provide the necessary background information on the research topic.

The chapter begins with a brief summary of the literature available and more specifically the literate available to answer the research questions contained in this thesis. The chapter next touches on the significance of the 1960s, which is the starting point for this research. Next is a review of major trends during the period followed by major information sources. The major information sources include the GAO, DAU, CRS, RAND Corporation, a book of note, and the DOD Inspector General. Three carefully selected major acquisition assessments are then introduced and covered. The chapter then highlights current calls for acquisition reform in three key government documents, the *National Security Strategy, QDR*, and *National Military Strategy*. The chapter concludes with DoD's latest acquisition reform effort and summary of literature.

<sup>&</sup>lt;sup>31</sup>Eide and Allen.

A thorough review of literature regarding acquisition reform reveals copious amounts of information on the topic, more than enough to address several topics. The most telling piece of information may very well be the shear length of time over which it has taken place. Numerous articles, reports, and books have been written about acquisition reform during the period this thesis covers, with more on the way. The fuel for these writings can be attributed to a constant state of acquisition reform in the DoD over the past half century. In addition to the extensive amount of information regarding acquisition reform, there is also an extensive amount of information pertaining to the performance of major weapon systems programs. There is drastically less information and research highlighting positive performance of acquisition reform or major weapon system program performance. This is evident with a quick internet search on the topic of "positive acquisition performance" that reveals very little information. This simple and quick search is very telling regarding the current state of defense acquisition of major weapon systems.

More specifically, there is plenty of information available to properly address the primary research topic of; why has the DoD been unsuccessful reforming the defense acquisition process for major weapon systems over the past half a century. The extensive information will not only address the primary research question but the associated secondary research questions as well.

The beginning of this research period and literature review has significance for many reasons. The 1960s provide the start to many of the positions, organizations, processes, and regulations that have evolved into their current form today. The 1960s also presented the government with the ever-growing challenge of addressing cost overruns

on major weapon systems of the 1950s and 1960s. This period begins the real boom in acquisition reform efforts. The regulation of DoD acquisitions was nonexistent or loose, to say the least, until the 1960s and the innovations brought by Secretary of Defense Robert S. McNamara. This trend would rapidly increase. "The growth in defense acquisition regulations was so rapid and uncoordinated that an Office of Federal Procurement Policy study conducted in the late 1970s found that DOD had 79 different offices issuing procurement regulations, and that these offices had developed 30,000 pages of regulations. McNamara who served in that position from 1961 to 1968 brought far too many changes to list but is credited for three largely grouped innovations, program planning and selection, source selection and contracting, and management of ongoing acquisition programs.<sup>33</sup>

From this staring point, throughout the entire span of this research, regardless of the President, the political party in control, the fiscal environment, status of military equipment, and if the nation is or is not at war; acquisition reform has been called for and taking place. As mentioned in chapter 1, a review of literature also highlights every administration and virtually every Secretary of Defense during this period embarking on a journey to reform the acquisition process. "Congress has also been active in pursuing reform efforts, by legislating changes through the annual National Defense Authorization Acts as well as through stand-alone legislation, such as the Federal Acquisition

<sup>&</sup>lt;sup>32</sup>Schwartz, Twenty-five Years of Acquisition Reform: Where Do We Go from Here?

<sup>&</sup>lt;sup>33</sup>Fox, 36.

Streamlining Act of 1994, Clinger-Cohen Act of 1996, and Weapon System Acquisition Reform Act of 2009 to mention a few."<sup>34</sup>

The shear effort expended to address improving the acquisition of major weapon systems over the past half century may best be expressed with the number of major studies undertaken to address what it will take to reform the acquisition process. "Efforts to address cost overruns, schedule slips, and performance shortfalls have continued unabated, with more than 150 major studies on acquisition reform since World War II." Although this number starts prior to the research period, it communicates the continuous effort to reform acquisitions during the research period. Various numbers exist, on the number of reform initiates and associated studies and reports during this period. The 150 major studies on acquisition reform listed above do not include the smaller scale studies during that time. A thorough review of literature did not result in a valid number for total studies on acquisition reform, regardless of size. The simple explanation for this is that studies were always ongoing and there are far too many to track.

The literature also communicates an increase in complexity and challenges throughout the research period, which continues today. The acquisition process used to acquire major weapon systems has drastically increased in size and complexity throughout the period, coupled with a dynamic and ever changing environment, and rapid rate of technological advances and complexity in major weapon systems. As referenced in chapter 1, a major program contract in the early 1900s consisted of 10 pages in

<sup>&</sup>lt;sup>34</sup>Schwartz, Twenty-five Years of Acquisition Reform: Where Do We Go from Here?

<sup>&</sup>lt;sup>35</sup>Ibid.

comparison to a major program today having a contract consisting of well over a 1,000 pages.<sup>36</sup>

# Major Information Sources

One of the largest and most valuable sources of information pertaining to the process of defense acquisition of major weapon systems is the GAO, formerly the Government Accounting Office. The GAO website summarizes their purpose within the government: "The U.S. Government Accountability Office is an independent, nonpartisan agency that works for Congress." Often called the "congressional watchdog," GAO investigates how the federal government spends taxpayer dollars. Their website contains reports and testimonies on the health of the defense acquisition process, more specifically program performance and reform recommendations, going back to the 1960s.

The GAO provides valuable information conducted by highly experienced and dedicated government professionals. Another important aspect of this source of information is the non-biased assessment that comes with the GAO being independent and nonpartisan. Their mission is, "To support the Congress in meeting its constitutional responsibilities and to help improve the performance and ensure the accountability of the federal government for the benefit of the American people. We provide Congress with timely information that is objective, fact-based, nonpartisan, non-ideological, fair, and balanced." 38

<sup>&</sup>lt;sup>36</sup>Ibid.

<sup>&</sup>lt;sup>37</sup>Government Accountability Office, "About GAO," http://www.gao.gov/about/index.html (accessed November 7, 2013).

<sup>&</sup>lt;sup>38</sup>Ibid.

The GAO, as a source by itself, provides coverage of the entire period this research covers. They have reports that document the challenges associated with the acquisition of major weapon systems and associate reform efforts over the past half century. A brief review of some of their reports, one at the beginning of the research period, one in the middle, and one recently released, validates this very point.

The first Government Accounting Office report covered is a 1970 report to Congress titled, "Status of the Acquisition of Selected Major Weapon Systems." The explanation provided at the beginning of the report as to why it was conducted, provides insight into the concerns with acquisition of major weapon systems and the need for reform almost 50 years ago. The report states, "The GAO examined into the status of selected major weapon systems because of the large acquisition cost involved, and the interest of the Congress in the acquisition of major defense weapon systems." The report goes on to state their future intentions. "GAO advised the Chairman of the Senate and House Armed Services Committees of its plans to give increased attention to the procurement of major weapons." The report was based on a review of the status of 57 major weapon systems as of June 30, 1969. The Government Accounting Office concluded there was considerable cost growth which had, and was continuing to occur, significant variances existed or were anticipated between originally projected and what was currently estimated, and slippage in schedules ranging from six months to three years

<sup>&</sup>lt;sup>39</sup>Comptroller General of the United States, *Status of the Acquisition of Selected Major Weapon Systems*.

<sup>&</sup>lt;sup>40</sup>Ibid.

<sup>&</sup>lt;sup>41</sup>Ibid.

had taken place or was projected on many of the systems.<sup>42</sup> The report also states officials of the Office of the Secretary of Defense were aware of the information presented in the report and were paying a great deal of attention to their resolution, which translates into seeking acquisition reform.

The second Government Accounting Office report covered was released in December 1992 and is titled, "A Rare Opportunity for Lasting Change." This report comes at a time of significant military strength and performance after Desert Storm. The report states these very points. "The United States today is in a position of unprecedented military strength and national security." Even in light of this military strength and performance, the calls for acquisition reform were still present. The report highlights this as well. "While these weapons provide a military capability that no other country is in a position to successfully challenge, their acquisition was, in many cases, fraught with significant problems." This report approaches acquisition reform and what is required to implement it with a focus on changing the culture in the DoD acquisition community. "It is the hope that this report will help to illuminate the cultural changes needed to meet the continuous challenge of improving acquisition outcomes."

<sup>&</sup>lt;sup>42</sup>Ibid.

<sup>&</sup>lt;sup>43</sup>Comptroller General of the United States, *Weapons Acquisition, A Rare Opportunity for Lasting Change* (Washington, DC: Government Accounting Office, December 1992), http://www.gao.gov/assets/160/152880.pdf (accessed April 29, 2014).

<sup>&</sup>lt;sup>44</sup>Ibid.

<sup>&</sup>lt;sup>45</sup>Ibid.

<sup>&</sup>lt;sup>46</sup>Ibid.

At the time the Government Accounting Office released the 1992 report above, they had been involved in the evaluation of the major weapon systems acquisition for over 30 years. The Government Accounting Office highlighted this very point in their report and it links them to the start of this research period. "During the late 1960s, we began to place more emphasis on reviews of major weapons systems." The report goes on to mention their first report was in 1970 and covered the status of 57 major DoD acquisition programs, which is the first Government Accounting Office report covered above. It also states, "In March 1971, we issued our first report on the DoD acquisition process itself, responding to Congress' desire for complete and impartial information about major weapon systems to facilitate critical acquisition decisions." These reports are linked and provide good coverage of the need and calls for acquisition reform for over half of this research period.

From their first report on DoD acquisitions in 1970 through their 1992 report,

Government Accounting Office audits resulted in more than 900 reports and testimonies on virtually all aspects of weapon system acquisitions. That number, from one source assessing the acquisition of major weapon systems, communicates the sheer magnitude of the acquisition reform effort. The report not only communicates the number of outputs, it also addresses the expansion of their work into more areas of the acquisition process.

The third and final GAO report covered in this chapter and used throughout this thesis is a testimony before the House of Representatives Committee on Armed Services

<sup>&</sup>lt;sup>47</sup>Ibid.

<sup>&</sup>lt;sup>48</sup>Ibid.

<sup>&</sup>lt;sup>49</sup>Ibid.

on October 29, 2013. The report on defense acquisitions is titled, "Where Should Reform Aim Next?" The report starts with the following statement: "The DoD must get better outcomes from its weapon system investments, which in recent years have totaled around \$1.5 trillion or more. Recently, there have been some improvements, owing in part to reforms."50 This GAO report provides a bookend to the research period covered in this thesis. The report covers the performance of DoD's major defense acquisition programs, management policies and processes currently in use, incentives to deviate from otherwise sound acquisition practices, and suggestions to address those deviations. A telling quote from the report captures a constant state of acquisition reform over the past half century. "Over the past years, Congress and DoD have continually explored ways to improve acquisition outcomes, including reforms that have championed sound management practices, such as realistic cost estimating, prototyping, and systems engineering."<sup>51</sup> The report also presents the performance of DoD's 2012 portfolio of weapon systems. At the time of the report, the 2012 portfolio had experienced cost growth around \$411 billion and schedule delays that averaged more than two years.

Another invaluable source of information on the acquisition of major weapon systems and associated reform efforts is the CRS, formerly known as the Legislative Reference Service prior to 1970. The CRS works for the U.S. Congress. Their website states the following mission, "CRS serves the Congress throughout the legislative process by providing comprehensive and reliable legislative research and analysis that are timely,"

<sup>&</sup>lt;sup>50</sup>Schwartz, Twenty-five Years of Acquisition Reform: Where Do We Go from Here?

<sup>&</sup>lt;sup>51</sup>Ibid.

objective, authoritative and confidential, thereby contributing to an informed national legislature."<sup>52</sup> President Woodrow Wilson signed a bill into law in 1914 establishing CRS as a separate department within the Library of Congress. One of their most recent reports, *Twenty-five Years of Acquisition Reform: Where Do We Go From Here?* will be covered later in this chapter.

A different type of source than the two government sources previously mentioned but also a valuable source of information with a different mission and perspective is the nonprofit RAND Corporation. The Rand Corporation website contains the mission, "RAND's mission is both simple and complex: We exist to help policymakers make decisions that are based on the best available information. At RAND, our results are fueled by the best data, the strongest methods, and the brightest minds." Numerous government organizations have used the RAND Corporation to assess and provide recommendations over the entire period of this research to improve the acquisition of major weapon systems. An example of their work is a 2005 report titled, "Reexamining Military Acquisition Reform." The report reviewed reform initiatives undertaken from 1989 to 2002, to include assessing how acquisition personnel felt about the difference the

<sup>&</sup>lt;sup>52</sup>Congressional Research Office, "About CRS," http://www.loc.gov/crsinfo/about/ (accessed April 29, 2014).

<sup>&</sup>lt;sup>53</sup>RAND Corporation, "History and Mission," http://www.rand.org/about/history.html (accessed April 30, 2014).

<sup>&</sup>lt;sup>54</sup>Christopher H. Hanks, Elliot I. Axelband, Shuna Lindsay, Mohammed Rehan Malik, and Brett D. Steele, *Reexamining Military Acquisition Reform*, *Are We There Yet?* (RAND Corporation, 2005), http://www.rand.org/pubs/monographs/MG291.html (accessed May 3, 2014).

initiatives made. Personnel felt the initiatives made some progress, but many serious structural and cultural impediments still remain and hinder the acquisition process.

Of particular note, another large source of information regarding this topic and the primary source of education and training for the DoD acquisition community is the DAU. Their acting president states the following purpose: "Welcome to the Defense Acquisition University, a best-in-class corporate university for the Defense Acquisition Workforce." They are a corporate organization the government uses as the primary means of acquisition professional education and certification for its workforce. They have the following mission: "Provide a global learning environment to develop qualified acquisition, requirements and contingency professionals who deliver and sustain effective and affordable warfighting capabilities." Their employees have an extensive amount of knowledge and experience. DAU plays a vital role in the acquisition process and through the education and training of acquisition personnel. The need for increased training for acquisition personnel is an area that has been consistently raised in calls for acquisition reform over the last half century.

In addition to training, DAU provides a wealth of information and tools on their website through products such as the DAG, which was used to explain the decision support systems in the previous chapter. They have also produced literature assessing acquisition performance and reform such as, *Cost Growth in Major Defense Acquisition:*Is There a Problem? Is There a Solution?, written by William D. O'Neil. This article

<sup>&</sup>lt;sup>55</sup>Defense Acquisition University, "About Defense Acquisition University," http://www.dau.mil/AboutDAU/default.aspx (accessed November 7, 2013).

<sup>&</sup>lt;sup>56</sup>Ibid.

addresses cost growth on defense programs specifically but also addresses the larger concern with major weapon acquisition results. "In the United States, the modern era of concern about defense program cost and results can fairly be said to have started in the late 1960s and early 1970s." An interesting note, during the review of literature, is in regard to the involvement of DAU in the DoD's latest round of reform, Better Buying Power 2.0. This is evident with multiple links from DAU's website to DoD's Better Buying Power website.

One piece of literature in particular deserves a dedicated section in this review. There are so many great pieces of literature covering acquisition reform by individuals, groups, and organizations, which have put an extensive amount of work into, but this one stands out for several reasons. The book, *Defense Acquisition Reform*, 1960-2009, *An Elusive Goal*, by Dr. J. Ronald Fox is a wealth of information contained in 268 pages.<sup>58</sup> It is an intriguing and enlightening read that covers a vast majority of the period this thesis covers, an invaluable source of information. It also provides a quality overview of the acquisition process, briefly described in chapter 1, but in more detail before going into acquisition reform. It provides a solid background by decade to include the political landscape, key players, constant change in DoD leadership, fiscal environment, military challenges and conflicts, and increasing complexity, in addition to the constant state of acquisition reform and associated challenges. This book confirms the statement made

<sup>&</sup>lt;sup>57</sup>William D. O'Neil, *Cost Growth In Major Defense Acquisition: Is There a Problem? Is There a Solution?* (A Publication for the Defense Acquisition University, July 2011), http://www.dau.mil/pubscats/pubscats/AR%20Journal/arj59/Oneil ARJ59.pdf (accessed September 23, 2013).

<sup>58</sup>Fox.

previously that regardless of the President, the political party in control, the fiscal environment, status of military equipment, and if the nation is or is not at war, acquisition reform has been called for and taking place constantly for the last half decade.

To enhance the credibility and value of Fox's book, it has been used by numerous other sources as a resource and reference in their research and reports. With this thesis being the latest to be added to that list. The best example of this may be the use of his book by the GAO. The GAO makes a sizeable reference in the 2013 Report, *Where Should Reform Aim Next*? One of the points they reference from Fox's book, further shapes the complexity facing the reform of defense acquisitions of major weapon systems by describing the differences between the defense industry and commercial marketplace. This very point, pointed out by these two major sources and many other sources, is listed below:

Many defense acquisition problems are rooted in the mistaken belief that the defense industry and the government-industry relationship in defense acquisition fit naturally into the free enterprise model. Most Americans believe that the defense industry, as a part of private industry, is equipped to handle any kind of development or production program. They also by and large distrust government 'interference' in private enterprise. Government and industry defense managers often go to great lengths to preserve the myth that large defense programs are developed and produced through the free enterprise system. Major defense acquisition programs rarely offer incentives resembling those of the commercial marketplace.<sup>59</sup>

Another source of note during the review of literate is the DoD Inspector General's Semiannual Report to Congress dated April 1, 2013 to September 1, 2013. The document contains the following mission: "Our mission is to provide independent, relevant, and timely oversight of the Department of Defense that: supports the warfighter;

<sup>&</sup>lt;sup>59</sup>Schwartz, Twenty-five Years of Acquisition Reform: Where Do We Go from Here?

promotes accountability, integrity, and efficiency; advises the Secretary of Defense and Congress; and informs the public." This is another government source with the same message, a need for acquisition reform with the following entry from this report:

Acquisition and contract management operations are critical core functions to the Department but also present persistent challenges within the Department. For acquisition programs, the Department needs to better balance its limited resources, the capabilities needed for current conflicts and the capabilities needed to prepare for possible future conflicts. Senior leadership has, in recent years, terminated acquisition programs that were underperforming, over budget or of questionable continuing investment. The Department continues to strengthen contracting and has issued policy, procedures and guidance addressing current contracting challenges. The Department continues to struggle to consistently provide effective oversight of its contracting efforts. The Department's continuing contracting deficiencies include obtaining adequate competition in contracts, defining contract requirements, overseeing contract performance, obtaining fair and reasonable prices, and maintaining contract documentation for contract payments." DoD IG oversight continues to assess Department acquisition processes and contract management. During this reporting period, DoD IG issued several reports highlighting questionable acquisition programs, lack of use of existing spare parts, pricing of spare parts and inadequate oversight of contracting efforts.61

# Major Acquisition Assessments

Out of the vast pool of acquisition assessments over the past half century, three have been selected for the literature review and later analysis to answer the research questions. The reports were selected because they met three criteria that will be explained in more detail in the next chapter, time of the report, source of the report, and scope of the report. The three major assessments in order are a 1971 Government Accounting Office report to Congress titled *Acquisition of Major Weapon Systems*, the 1986

<sup>&</sup>lt;sup>60</sup>Inspector General, United Sates Department of Defense, *Semiannual Report to the Congress*, April 2013 to September 2013, http://www.dodig.mil/pubs/sar/SAR APR SEPT 2013 web compliant.pdf (accessed April 27, 2013).

<sup>&</sup>lt;sup>61</sup>Ibid.

President's Blue Ribbon Commission on Defense Management, and a 2013 CRS report titled *Twenty-five Years of Acquisition Reform: Where Do We Go From Here?* In addition to the information pertaining to what these assessments entailed and reported, there is an extensive amount of government reports, and testimonies, as well as independent assessments preceding and following these three acquisition assessments. For the purposes of this research, the review of these documents will consist of a brief summary hitting the major points associated with the efforts. A more detailed breakdown of the assessments contained will be presented in chapter 4.

The first major acquisition assessment covered in this literature review is a Government Accounting Office report Congress titled, *Acquisition of Major Weapon Systems*, dated March 18, 1971.<sup>62</sup> The explanation provided at the beginning of the report as to why it was conducted provides insight into the significance of acquisition reform almost 50 years ago, to include concerns by Congress and DoD as well as the impact to other national priorities. The report states, "The large investment required in recent years for acquisition of major weapons has impacted heavily the resources available for other national goals and priorities. Acquiring major weapons involves substantial long-range commitment of future expenditures." The report goes on to state the concerns in government. "Because of deep concern in the Congress of these matters and because of evidence that the weapon systems acquisition process has serious weakness, the GAO has undertaken to provide a continued series of appraisals of these factors most closely

<sup>&</sup>lt;sup>62</sup>Comptroller General of the United States, *Acquisition of Major Weapon Systems* (Washington, DC: Government Accounting Office, March 18, 1971), http://www.gao.gov/assets/210/202320.pdf (accessed September 22, 2013).

<sup>63</sup> Ibid.

related to effective performance in procuring major weapons."<sup>64</sup> The report presents extensive figures and charts on cost and schedule performance of major weapon systems. The report concludes by characterizing programs by slower development and conservative procurement practices resulting in delayed availability and increased costs.

Prior to the 1971 Government Accounting Office report, the DoD led by Deputy Secretary of Defense David Packard, was conducting multiple assessments of the acquisition of major weapon systems, to include Panel A and the 1970 Blue Ribbon Defense Panel. The nation was facing a challenging time with the years of war in Vietnam and the struggling performance of major acquisition programs. Some of the major problems identified by Panel A included cost and schedule slippage, problems with inadequately defined operational performance objectives, insufficient hardware demonstration, unreliable cost estimates, insufficient initial funding, and management weakness. The 1970 Blue Ribbon Defense Panel took a much broader look at the DoD, studying and reporting on their entire organization, structure, and operation.

The second major reform effort acquisition assessment covered in this literature review is the 1986 President's Blue Ribbon Commission on Defense Management, more

<sup>&</sup>lt;sup>64</sup>Ibid.

<sup>&</sup>lt;sup>65</sup>Fox, 51.

<sup>&</sup>lt;sup>66</sup>Ibid.

<sup>&</sup>lt;sup>67</sup>Blue Ribbon Defense Panel, *Report to The President and the Secretary of Defense on the Department of Defense*, July 1, 1970, www.dtic.mil/cgi-bin/GetTRDoc?AD=ADA013261 (accessed September 29, 2013).

commonly referred to as the Packard Commission. The product of their yearlong study, led by David Packard, former Deputy Secretary of Defense and head of Hewlett-Packard, was a report titled, A Quest for Excellence. The report states whom, why, and for what reason the commission was assembled to produce the assessment. In July 1985, this Commission was charged by the President to conduct a defense management study of important dimension. President Ronald Regan issued Executive Order 12526 establishing the Packard Commission. The report covered a very wide scope, looking at the operation of DoD as a whole, to include an assessment of acquisition organization and procedures. Our findings and recommendations, summarized below, concern major features of national security planning and budgeting, military organization and command, acquisition organization and procedures, and government-industry accountability. After a thorough review of literature, this complex report covering DoD management and organization may have been the most referenced acquisition assessment during the past half century.

Prior to the President establishing the Packard Commission, numerous assessments and initiatives were conducted and implemented due to ever inflating costs of major weapon systems. A poll of 54 program managers in 1986 came back with over half of them stating they thought the 32 Carlucci initiatives implemented five years early

<sup>&</sup>lt;sup>68</sup>President's Blue Ribbon Commission on Defense Management, *A Quest for Excellence: Final Report to the President*, June 30, 1986, http://usacac.army.mil/cac2/CSI/docs/Gorman/06\_Retired/01\_Retired\_1985\_90/07\_86\_PackardCommission\_FinalReport/01\_PackardCommission\_FinalReport.pdf (accessed September 29, 2013).

<sup>&</sup>lt;sup>69</sup>Ibid.

<sup>&</sup>lt;sup>70</sup>Ibid.

made little to no difference in the acquisition process.<sup>71</sup> When Regan began his second term, he was under considerable criticism for charges of fraud, waste, and mismanagement in DoD following the massive defense buildup during his first administration. "In 1985, members of Congress introduced more than one-hundred-forty bills related to improving the defense acquisition process, many of which were accompanied by numerous press conferences, public expressions of outrage, and assertions that the new legislation would plug a few more holes in the dike."<sup>72</sup>

As with the time surrounding the first major assessment, the time surrounding this second major assessment finds strong statements from government officials about the acquisition of major weapon systems. Senator Charles E. Grassley provides an example of these loud calls in 1985, "I and others here in Congress have charged that the defense industry is fat, wasteful, poorly managed, and consequently contributes to an erosion of national defense." The loud calls by government officials is a trend that will continue with the third and final major assessment closes out the research period of this study.

The third and final major assessment covered in this literature review is a 2013 CRS report titled *Twenty-five Years of Acquisition Reform: Where Do We Go From Here*? The report was prepared for Members of Congress and presented along with other testimonies before the Committee on Armed Services, House of Representatives on

<sup>&</sup>lt;sup>71</sup>Fox, 118.

<sup>&</sup>lt;sup>72</sup>Ibid.

<sup>&</sup>lt;sup>73</sup>Ibid.

October 29, 2013.<sup>74</sup> This was part of a hearing series in the House of Representatives, stemming from the House Armed Services Committee Chairman Howard P. McKeon appointing Vice Chairman Mac Thornberry, to lead a long-term effort to reform the DoD including a hard look at acquisition.<sup>75</sup> The contents of the CRS report will be analyzed in depth in chapter 4. There is a very interesting and telling message that is being communicated with this latest assessment directed by the Armed Services Committee. The DoD is currently in the process of implementing what may be the largest and most complex acquisition reform effort in its history. Even with this extensive effort ongoing, the House of Representatives is looking very heavily at the acquisition of major weapon systems, and what it will take to reform the process. Whether intended or not, this latest assessment communicates a lack of confidence in the latest reform effort or the ability to implement reform period after 50 years of trying.

Thornberry outlined the purpose behind the CRS report as part of a larger effort and concerns with the DAS in a recent article titled, "Reforming a Defense Acquisition System that Costs Money, Lives." In the article, he outlines the current environment with complex security threats and tight defense budgets for the foreseeable future. "There are a lot of good people in and out of government who work hard to see that our military

<sup>&</sup>lt;sup>74</sup>Schwartz, Twenty-five Years of Acquisition Reform: Where Do We Go From Here?

<sup>&</sup>lt;sup>75</sup>Armed Services Committee, "Durable Defense Reform," http://armedservices. house.gov/index.cfm/durable-defense-reform (accessed May 2, 2014).

<sup>&</sup>lt;sup>76</sup>Mac Thornberry, Vice Chairman Armed Services Committee, "Reforming a Defense Acquisition System that Costs Money, Lives," October 29, 2013, http://www.realcleardefense.com/articles/2013/10/29/reforming\_a\_defense\_acquisition\_system\_that\_costs\_money\_lives\_106939.html (accessed May 1, 2014).

is provided with the best. But they operate in a system that too often works against them." In addition to this point, he referenced the nearly 2000 pages of acquisition regulations and Congress and the Pentagon often responding to cost overruns with the addition of another law or oversight office. The article contained many hard-hitting quotes. "The situation has gotten so bad that in order to supply our troops in Iraq and Afghanistan, entire new streamlined procurement systems were created in order to circumvent the normal process." Another of those quotes was in regards to lives and security of the nation. "The weapons and equipment that are produced are too often late and over budget. But the cost is in more than just dollars. Delays in getting top quality equipment into the hands of our troops can cost lives, and the overall security of our nation can be affected."

## Key National Documents

One need not look any further for acquisition reform of major weapon systems than some of our Nation's key documents, the *National Security Strategy*, *QDR*, and *National Military Strategy*. These are high-level documents with enormous importance to the defense of our nation to say the least. This too communicates that even with a half century of acquisition reform, the importance and significance of reforming the acquisition of major weapon systems remains an ongoing effort and national level priority. The *National Security Strategy* mentioning the need to improve the acquisition

<sup>&</sup>lt;sup>77</sup>Ibid.

<sup>&</sup>lt;sup>78</sup>Ibid.

<sup>&</sup>lt;sup>79</sup>Ibid.

process is another high-level call to reform the acquisition of major weapon systems. The following is taken straight from the *National Security Strategy*:

Reform Acquisition and Contracting Processes: Wasteful spending, duplicative programs, and contracts with poor oversight have no place in the United States Government. Cost-effective and efficient processes are particularly important for the Department of Defense, which accounts for approximately 70 percent of all Federal procurement spending. We will scrutinize our programs and terminate or restructure those that are outdated, duplicative, ineffective, or wasteful. The result will be more relevant capable, and effective programs and systems that our military wants and needs. We are also reforming Federal contracting and strengthening contracting practices and management oversight with a goal of saving Federal agencies \$40 billion dollars a year.<sup>80</sup>

The *QDR* is the next high-level government document referencing the need to reform the acquisition of major weapon systems. The latest version of this key document states the following purpose: "The 2014 QDR seeks to adapt, reshape, and rebalance our military to prepare for the strategic challenges and opportunities we face in the years ahead." The following reference to acquisition reform is made in the key defense document:

We are also continuing to implement acquisition reform efforts, most notably through the Better Buying Power initiative that seeks to achieve affordable programs by controlling costs, incentivizing productivity and innovation in industry and government, eliminating unproductive processes and bureaucracy, promoting effective competition, improving tradecraft in contracted acquisition of services, and improving the professionalism of the total acquisition workforce. The Department will remain committed to continuously increasing productivity in defense acquisition.<sup>82</sup>

<sup>&</sup>lt;sup>80</sup>Office of the President of the United States. *National Security Strategy* (Washington, DC: Government Printing Office, 2010).

<sup>81</sup> Department of Defense, Quadrennial Defense Review Report.

<sup>82</sup>Ibid.

The *National Military Strategy* is the yet another high-level government document referencing the need to reform the acquisition of major weapon systems. The latest version of this document communicates a valid and consistent message with the *National Security Strategy* and QDR previously covered. The *National Military Strategy* states the following purpose, "This National Military Strategy emphasizes how the Joint Force will redefine America's military leadership to adapt to a challenging new era."<sup>83</sup> The following reference to acquisition reform is made in the key defense document:

We must continue to maintain our margin of technological superiority and ensure our Nation's industrial base is able to field the capabilities and capacity necessary for our forces to succeed in any contingency. At the same time, we will pursue deliberate acquisition process improvements and selective force modernization with the cost effective introduction of new equipment and technology.<sup>84</sup>

These three national documents are all linked to each other and provide the vision and framework for the defense of the U.S. For the purpose of this research these key documents are also linked and in unison with their emphasis on acquisition reform.

## DoD's Latest Acquisition Reform Effort

After half a century of assessments on the acquisition of major weapon systems, calls for reform, numerous efforts and initiatives by each administration, the DoD and its dedicated workforce finds itself implementing a very extensive acquisition reform initiative, Better Buying Power 2.0. An entire website is dedicated to communicating and implementing this imitative. Better Buying Power 2.0 builds on the initial Better Buying

<sup>&</sup>lt;sup>83</sup>Chairman of the Joint Chief of Staff, *National Military Strategy* (Washington, DC: Government Printing Office, 2011).

<sup>84</sup>Ibid.

Power 1.0 initiative by modifying some of the guidance and introducing some new initiatives.

A preliminary version of Better Buying Power 2.0 was released to the defense acquisition workforce in a memorandum from The Undersecretary of Defense, Frank Kendell, on November 13, 2012<sup>85</sup> with a follow-up memorandum dated April 24, 2013. The subject for the DoD acquisition leadership was: *Implementation Directive for Better Buying Power 2.0–Achieving Greater Efficiency and Productivity in Defense Spending*. This memorandum outlines the seven areas to achieve greater efficiency and productivity in defense spending. The memorandum also covers four principles titled, Think, People, Start with the Basics, and Streamline Decisions. The memorandum concluded with a note that all applicable DoD Directives shall be updated in an effort to implement Better Buying Power 2.0 within 180 days.

Introduced in the Under Secretary of Defense's April 24, 2013 memorandum, DoD is updating DoD Instruction 5000.2, "Operation of the Defense Acquisition System." To bridge the gap between the previous version of DoD Instruction 5000.2 and the new DoD 5000.2, the DoD has released an interim instruction. In a memorandum dated November 26, 2013, the Deputy Secretary of Defense stated, "I have determined that the current DoD Instruction 5000.2, "Operation of the Defense Acquisition System," December 2008, requires revision to create an acquisition policy environment that will

<sup>&</sup>lt;sup>85</sup>Under Secretary of Defense, *Better Buying Power 2.0: Continuing the Pursuit for Greater Efficiency and Productivity in Defense Spending*, Memorandum for Acquisition Workforce, November 12, 2012.

<sup>&</sup>lt;sup>86</sup>Under Secretary of Defense, *Implementation Directive for Better Buying Power* 2.0: Achieving Greater Efficiency and Productivity in Defense Spending, Memorandum for Secretaries of the Military Departments and Others, April 24, 2013.

achieve greater efficiency and productivity in defense spending and effectively implement the department's Better Buying Power initiatives." The previous version of DoD Instruction 5000.2 dated December 8, 2008 was cancelled with the exception of Enclosure 9, Acquisition of Services, which is also outlined in the Deputy Secretary of Defense's memorandum. Interim DoD Instruction 5000.02, "Operation of the Defense Acquisition System," was released on November 25, 2013. The new DoD Instruction 5000.2 will capture the initiatives contained in Better Buying Power 2.0 in order to align acquisition instruction and policy with reform initiatives, which has not always been the case in the past. In the Deputy Secretary of Defense's memorandum dated November 26, 2013 he directed the new DoD Instruction 5000.2 be completed within 180 days. This will be one of the major steps to implementing the latest reform initiatives.

## Summary of Literature

As previously mentioned, one of the most telling findings in review of literature regarding acquisition reform of major weapon systems is the expansive period of time it covers. In addition to the time, since the primary research topic relates to a U.S. Government process, an extensive amount of government documents capturing assessments, reports, testimonies, and initiatives exists. The call for acquisition reform has been a loud one for over half a century. A recent GAO report captures this very point with the following: "Over the past 50 years, Congress and the Department of Defense have explored ways to improve acquisition outcomes, including recent actions like the Weapons Systems Acquisition Reform Act and the department's own Better Buying

<sup>87</sup> Ibid.

Power initiatives." The substantial amount of information in existence, some of which was presented in this chapter, along with the importance to the U.S. defense, has and continues to make this topic significant and up the upmost importance. The next chapter will explain the research methodology used to analysis the major acquisition assessments with the ultimate outcome of answering the primary and associated secondary research questions.

<sup>88</sup>Government Accountability Office, *Defense Acquisitions: Where Should Reform Aim Next?* 

### CHAPTER 3

#### RESEARCH METHODOLOGY

The primary purpose of this chapter is to cover the research method used to answer the primary and the associated secondary research questions. Since the primary research question relates to a U.S. Government process (system), an extensive amount of government and independent documents capturing assessments, reports, testimonies, and initiatives exist. Adding to this information base, the research questions cover a vast period, starting in the 1960s and running through 2013. With such an extensive information base over a vast period, there is more than enough information to answer the research questions. With such a wealth of information, only a small carefully selected amount of that information can be reviewed and covered within this thesis. To exploit the benefits of copious amounts of information, a meta-analysis is used to answer the research questions. A more detailed description of what a meta-analysis is and how it will be used is in the proceeding paragraphs.

This chapter first restates the purpose of the research into acquisition reform over the past half century. Next, it covers the research method used to answer the primary and associated secondary research questions. This includes a detailed definition of the selected research method and how it will be used to answer the research questions. A brief explanation of the selection criteria for the three major acquisition assessments used in the analysis will follow. Finally, the chapter provides the primary and secondary research questions that will be answered through the use of the meta-analysis followed by a brief summary.

Previous research has shown mixed results on what is plaguing defense acquisitions and if the long history of reform efforts have been successful. This topic is of vital importance as it has, and continues to complicate, the DoD's ability to provide our military forces with the equipment needed in time to defend our nation in a dynamic and every changing environment. A quote from a October 2013 GAO report confirms the significance and importance of research and focus on acquisition reform at any time with the following entry, "The enormity of the investment in acquisitions of weapons systems and its role in making U.S. fighting forces capable, warrant continued attention and reform. The potential for savings and for better serving the warfighter argue against complacency." It has been roughly a half century of constant calls and actions to implement acquisition reform, in the DoD, to the process used to procure major weapon systems. The six factors outlined previously highlight the significance and critically of acquisition reform today. This research will address whether the calls for acquisition reform today, are consistent with calls for acquisition reform as far back as the 1960s.

## Meta-analysis

A meta-analysis was used to compare acquisition reform over the past half century. As previously mentioned, there is a vast amount of information covering these research questions. In order to cover such a vast amount of information and time, three major acquisition assessments during the period starting in the 1960s and running through 2013 were selected. To compare these acquisition assessments, a meta-analysis was used. Merriam-Webster defines a meta-analysis as a quantitative statistical analysis of several

<sup>89</sup>Ibid.

separate but similar experiments or studies, in order to test the pooled data for statistical significance. A more detailed definition provides strong support for the selection of this method to show any correlation in acquisition reform over the past half a century. A meta-analysis is:

A subset of systematic reviews; a method for systematically combining pertinent qualitative and quantitative study data from several selected studies to develop a single conclusion that has greater statistical power. This conclusion is statistically stronger than the analysis of any single study, due to increased numbers of subjects, greater diversity among subjects, or accumulated effects and results.<sup>91</sup>

Since a majority of the documents used were government reports, all were accessible online. With the wealth of information available electronically, the internet was the primary tool to research and collect the required information to address this problem statement, and answer the primary and associated secondary research questions. In addition to the internet, the research professionals at the Combined Arms Library also aided research by pulling and saving electronically, key assessments, reports, reform indicatives, and articles pertaining to the topic for analysis and use in answering the research questions. The major sources highlighted in chapter 2 provided a majority of the information that was obtained electronically.

# Selection Criteria

As previously mentioned with such a vast amount of information available, a few key assessments were selected for use in the meta-analysis. The major criteria used to

<sup>&</sup>lt;sup>90</sup>Merriam-Webster Dictionary, "meta-analysis," http://www.merriam-webster.com/dictionary/meta-analysis (accessed April 14, 2014).

<sup>&</sup>lt;sup>91</sup>Himmelfarb Health Sciences Library, *Meta-Analysis*, Study Design 101, November 2011, https://himmelfarb.gwu.edu/tutorials/studydesign101/metaanalyses.html (accessed April 11, 2014).

select the three assessments were, time of the report, source of the report, and scope of the report. To address the first criteria, timing of the report, an acquisition assessment was selected from the beginning of the period, roughly half way through the period, and near the end of the period. To address the second criteria, source of the report, an assessment was selected from the Government Accounting Office, Packard Commission, and CRS ensuring credible sources of information. To address the third and final criteria, scope of the report, each potential assessment was reviewed to ensure it contained substantial information to address the research questions. With the use of these selection criteria, the following reports were selected for use in the meta-analysis to answer the research questions that follow:

- 1. 1971 Government Accounting Office report to Congress titled, Acquisition of Major Weapon Systems
- 2. The 1986 President's Blue Ribbon Commission on Defense Management (Packard Commission)
- 3. 2013 CRS report titled, Twenty-five Years of Acquisition Reform: Where Do We Go From Here?

# Primary Research Question

Why is the DoD still attempting to reform the process used to acquire major weapon systems after a half a century of efforts?

## Secondary Research Questions

What drove the need for acquisition reform?

What is the history of acquisition reform?

What are some major acquisition reform efforts?

What are the similarities and differences with the reform efforts?

# Summary and Conclusion

There has been extensive time and resources put into the topic of acquisition reform over the past half century. This chapter provided the methodology that will be used in this research to take a different look at acquisition reform and why the DoD has been in a constant state of reform over the last half century. The three reports selected for use in the meta-analysis will be analyzed in detail in the next chapter. The use of graphs and charts will visually highlight trends, differences, and major findings, in combination with the text, to provide a complete and clear picture of the answers to this research.

### CHAPTER 4

#### **ANALYSIS**

As previously mentioned, there has been extensive research and reports assessing DoD acquisition of major weapon systems over the past half a century. Previous research has shown mixed results on what is plaguing defense acquisitions and if the long history of reform efforts has been successful. Even with this plethora of information, research, assessments, reports, and reform efforts, the present time finds the DoD acquisition community amidst yet another acquisition reform initiative, Better Buying Power 2.0, covered in the literature review. Given the current environment and the six critical factors described in chapter 1, the assessment of the acquisition of major weapon systems and associated reform efforts are receiving more attention than ever.

The purpose of this chapter is to analyze three major acquisition assessments over the past half century to highlight similarities, differences, and trends. It is important to note that assessments, reports, and reform efforts have pointed out flaws in almost every aspect, process, regulation, management, and oversight in the acquisition of major weapon systems over the past half century. An introduction to these three major acquisition reform assessments was presented in chapter 2. This research will address whether the calls for acquisition reform today, are consistent with calls for acquisition reform as far back as the 1960s. This analysis will provide the answers to the secondary research questions. The ultimate goal of this analysis, is to answer why the DoD is still trying to reform the process used to acquire major weapon systems in the DoD, after a half century of efforts and will be covered in chapter 5.

This chapter contains the analysis of three major acquisition assessments at different points in time over the last half century. As described in the chapter 3, a meta-analysis will be used to compare acquisition reform over the past half century, with the use of these three major acquisition assessments. Each one of the three major acquisition assessments will be analyzed and covered individually to begin the chapter. After a detailed analysis of each assessment is presented individually, a comparison will be presented to highlight any similarities, differences, and trends between them and over the entire span of time. In addition to the narrative, a graphic will be presented to highlight these similarities, differences, and trends between the assessments. Finally, the secondary research questions will be addressed and the chapter concludes with a brief summary.

The three major acquisition assessments selected and covered in this chapter in order are a 1971 Government Accounting Office report to Congress titled, Acquisition of Major Weapon Systems, the 1986 President's Blue Ribbon Commission on Defense Management, and a 2013 CRS report titled Twenty-five Years of Acquisition Reform:

Where Do We Go From Here? These three assessments were introduced in chapter 2 to provide background information surrounding the state of acquisitions at the time and the purpose of the reports. These three carefully selected major acquisition assessments come from a tremendous pool of candidates. The criteria used to select these three major acquisition assessments were covered in chapter 3. The last half century has seen such an abundance of acquisition reform efforts, coming from numerous individuals and groups, within and outside the government, and ranging from minor initiatives to calls for a complete overhaul of the acquisition process used to procure major weapon systems. As mentioned and quoted in chapter 2, "Efforts to address cost overruns, schedule slips, and

performance shortfalls have continued unabated, with more than 150 major studies on acquisition reform since World War II."92 The three major assessments analyzed in this chapter are all substantial efforts and provide a good sample evenly spread over the past half century.

## **Findings**

The first major acquisition assessment that will be analyzed is the 1971 Government Accounting Office report to Congress titled, *Acquisition of Major Weapon Systems*. The Government Accounting Office states the purpose of the report with the following statement: "Because of deep concern in the Congress of these matters and because of evidence that the weapon systems acquisition process has serious weakness, the GAO has undertaken to provide a continued series of appraisals of these factors most closely related to effective performance in procuring major weapons." The major findings below are taken directly from this acquisition assessment and completely attributed to their research, analysis, and reporting.

1. Slower Development/Acquisition Strategy: Problems with compromised performance, delayed availability, and increased costs. Government Accounting Office found generally new acquisition programs are following a slower development pace and procurement practices are more conservative.<sup>94</sup>

 $<sup>^{92}\</sup>mbox{Schwartz},~Twenty-five~Years~of~Acquisition~Reform:~Where~Do~We~Go~from~Here?$ 

<sup>&</sup>lt;sup>93</sup>Comptroller General of the United States, *Acquisition of Major Weapon Systems*.

<sup>&</sup>lt;sup>94</sup>Ibid.

- 2. Requirements Determination: Problems with identification of need for a weapon systems and the priority that should be assigned with its development.
  DoD has no organized method by which proposals can be measured against the need to select which weapon system will be developed. A method to achieve this is under development.<sup>95</sup>
- 3. Key Performance Parameters: Persistent problems with defining performance characteristics of weapon systems and determining the technical feasibility of achieving that performance.<sup>96</sup>
- 4. Cost Estimates: Variations in cost-effectiveness determinations has lessened the value of these studies to the entire acquisition process.<sup>97</sup>
- 5. Organization and Authority: One of the most important unresolved problems exists with organization. The attempt to use a military command structure has resulted in a large number of organizations not directly involved which will only negatively influence the project. The Government Accounting Office believes program management and organization will evolve along mission lines. There must be someone in charge with the authority to make decisions and have full responsibility for the results. 98
- 6. Cost, Quantity, and Engineering Changes: On 61 selected weapon systems estimates to develop and produce the weapon system; the cost increased \$33.4

<sup>95</sup> Ibid.

<sup>&</sup>lt;sup>96</sup>Ibid.

<sup>&</sup>lt;sup>97</sup>Ibid.

<sup>98</sup> Ibid.

billion. Roughly one third of this was attributed to differences in cost estimates done when the system was first approved for development, and when it was ready for development. The remaining two thirds plus was due to changes in quantities, engineering changes, and provisions for increased cost due to economic inflation.<sup>99</sup>

The second major acquisition assessment that will be analyzed is the 1986

President's Blue Ribbon Commission on Defense Management, more commonly referred to at the Packard Commission. The Committee Chairmen, Mr. David Packard states the following purpose: "The Final Report is intended to assist the Executive and Legislative Branches as well as industry in implementing a broad range of needed improvements." Due to the vast scope of this major assessment, only the portions directly pertaining to the acquisition of major weapon systems is analyzed. The major findings below are taken directly from this major acquisition assessment and completely attributed to their research, analysis, and reporting.

- 1. Cost, Schedule, and Performance: Weapon systems take too long, cost too much, and often do not perform to the level promised or expected. 101
- 2. Funding: There has been chronic instability in funding programs, which eliminates economies of scale, stretches out programs, and discourages contractors form making investments to improve productivity. 102

<sup>99</sup>Tbid.

<sup>&</sup>lt;sup>100</sup>President's Blue Ribbon Commission on Defense Management.

<sup>&</sup>lt;sup>101</sup>Ibid.

<sup>&</sup>lt;sup>102</sup>Ibid.

- 3. Federal Laws Governing Procurement/Regulations: The Federal Laws governing procurement have become very complex with the addition of new statues that produce more administrative regulation. This has resulted in defense acquisition becoming more bureaucratic, overstaffed, and encumbered by layers of management.<sup>103</sup>
- 4. Responsibility/Organization: The responsibility for acquisition policy is fragmented, with no single senior official in the Office of the Secretary of Defense working full-time to provide supervision of the acquisition system.
  This leaves it to the services and led to a lack of coordination and uniformity at times.<sup>104</sup>
- 5. Authority: The authority for acquisition execution and accountability for its results are diluted, depriving program managers' control over programs. 105
- 6. Senior-level Appointment/Workforce: Deficiencies in the appointment system has complicated the recruitment of top executive personnel with industry and acquisition experience. The civilian personnel management system and regulations are not flexible.<sup>106</sup>
- Requirements: Overstatement of requirements on weapon systems has led to overstated specifications and higher costs.<sup>107</sup>

<sup>&</sup>lt;sup>103</sup>Ibid.

<sup>&</sup>lt;sup>104</sup>Ibid.

<sup>&</sup>lt;sup>105</sup>Ibid.

<sup>106</sup>Ibid.

<sup>&</sup>lt;sup>107</sup>Ibid.

- 8. Cost Estimates: In short, a better job estimating costs needs to be done and specifically early in the program.<sup>108</sup>
- 9. Testing: Developmental and operational testing have been too divorced.
  Operational testing has taken place too late and prototypes have not been used and tested enough.<sup>109</sup>
- 10. Acquisition Strategies/Process: There has not been enough competition for contracts. There is a need for multi-year procurement, base lining, and the use of non-developmental items to yield program stability, even though it will result in a small cost to management flexibility. The nation's defense programs lose far more to inefficient procedures, than to fraud and dishonesty.<sup>110</sup>

The third and final major acquisition assessment that will be analyzed is a 2013 CRS report titled, *Twenty-five Years of Acquisition Reform: Where Do We Go From Here*?<sup>111</sup> The following quote from the report captures the continued need for assessment: "For decades, Congress and the executive branch have expressed frustration with the level of waste, mismanagement, and corruption in defense acquisitions, and have spent significant resources seeking to reform and improve the process. Despite these efforts,

<sup>&</sup>lt;sup>108</sup>Ibid.

<sup>&</sup>lt;sup>109</sup>Ibid.

<sup>110</sup>Ibid.

<sup>&</sup>lt;sup>111</sup>Schwartz, Twenty-five Years of Acquisition Reform: Where Do We Go from Here?

many acquisition programs still experience cost overruns, schedule delays, and performance shortfalls."112

Of note, this 2013 major assessment makes several references to the previously covered 1986 Packard Commission assessment. Before any analysis or comparison of the reports, this already communicates a link to similar problems plaguing the acquisition of major weapon systems spanning the 27 years between them. This report also communicates the impact of half a century of acquisition reform efforts by the shear fact of when it takes place. Intended or not, it communicates some skepticism by Congress as to the DoD's ability to reform the acquisition process because it was requested amidst one of DoD largest reform efforts to date, Better Buying Power 2.0. Unlike the first two major assessments, this one contained more trends in acquisition reform, to include systems, problems, and some positive trends as well. The major findings below are taken directly from this major acquisition assessment and are completely attributed to their research, analysis, and reporting.

1. Cost, Schedule, and Performance: Since the 1970s and 1980s, acquisition programs have experienced significant cost increases. This has created much debate over how effective acquisition reform efforts have been. Since 1993, development contracts have a median of 32 percent cost growth and since 1997, 31 percent of all major defense acquisition programs have had cost growth of at least 15 percent. From 1990 to 2010 the Army terminated 22 programs, spending more than \$1 billion annually from 1996 to 2010 on programs that

<sup>112</sup>Ibid.

were cancelled. Since 1980, aircraft development times have increased significantly. 113

- 2. Acquisition Process: Analysts argue that instead of improving the systems, acquisition reform efforts have done the opposite, and made the process less efficient and effective. A direct quote from the report that comes from Dr. Fox's book "If some were asked to devise a contracting system for the federal government, it is inconceivable that one reasonable person or a committee of reasonable people could come up with our current system." Increased complexity of weapon systems and inclusion of public policy goals has also increased the complexity of the process. The complexity of regulations makes it difficult for some companies to enter into the area of government contracting.
- 3. Acquisition Regulations and Rules; Legislative and Regulatory: As with the complexity, changing rules from reform efforts discourages some companies form seeking government contracts. The changes to rules governing defense acquisitions are usually a result of legislation or executive branch rules and regulations. At times the rules and regulations change at a rapid pace. The DoD Directive 5000 series, established in 1971, has been revised more than a dozen times ranging from eight to 840 pages. These changes add challenges to

<sup>&</sup>lt;sup>113</sup>Ibid.

<sup>&</sup>lt;sup>114</sup>Ibid.

<sup>&</sup>lt;sup>115</sup>Ibid.

program managers already burdened with the complexity of the process and weapon system under development. 116

- 4. Changing Landscape: The acquisition system has not been responsive to an ever-changing world. The current DoD acquisition practices are inadequate in a changing industrial world. The number of major defense contractors has decreased from 50 to six in the last 25 years, which has an effect on competition and innovation. Constrained budgets are fostering better decision making, the ability to prioritize had been lost with large budgets and spending. 117
- 5. Improving the Workforce: Despite hundreds of recommendations to improve acquisitions, most reports seeking the weakness of the system arrive at similar conclusions. Having a good workforce, with the necessary resources, incentives, and authority is the key to having a good acquisition system. Without a culture that promotes good acquisition decisions, a reform effort will not achieve its fullest potential. Shortages in properly trained acquisition personnel increase the risk of poor program performance. DoD has recognized this point and made recent strides with the hiring of 8,300 acquisition professionals. 118
- 6. Incentives: The right incentives must be in place with the proper workforce.

  The acquisition process has encouraged people to make poor decisions. This is evident with the obligation of funds before they expire even if not needed because the belief is future funding will be cut. Another area incentives drive

<sup>&</sup>lt;sup>116</sup>Ibid.

<sup>&</sup>lt;sup>117</sup>Ibid.

<sup>&</sup>lt;sup>118</sup>Ibid.

poor decisions is in the area of cost estimating. Contractors use low cost estimates to win contracts and program representatives use low estimates to argue for approval against competing systems.<sup>119</sup>

7. Authority and Accountability: Without authority, even the most skilled and incentivized professionals cannot effectively run and manage a program. The current management structure is bureaucratic; too many people can influence a program. The following quote in the report addressing this very issue is taken from the 1986 Packard Commission:

Excellence in defense management cannot be achieved by the numerous management layers, large staffs, and countless regulations in place today. It depends . . . on reducing all of these by adhering closely to basic, common sense principles: giving a few capable people the authority and responsibility to do their job, maintaining short lines of communication, and holding people accountable for results. 120

8. Cost Estimates: The absence of more reliable cost estimates denies Congress the ability to decide on competing strategic and budget priorities, in addition to denying DoD the opportunity to develop solid acquisition plans. The report documents this very point with an entry form the 2010 *QDR*, "Our system our system of defining requirements and developing capability too often encourages reliance on overly optimistic cost estimates." <sup>121</sup>

<sup>119</sup>Tbid.

<sup>&</sup>lt;sup>120</sup>Schwartz, Twenty-five Years of Acquisition Reform: Where Do We Go from Here?; President's Blue Ribbon Commission on Defense Management.

<sup>&</sup>lt;sup>121</sup>Schwartz, Twenty-five Years of Acquisition Reform: Where Do We Go from Here?; Department of Defense, Quadrennial Defense Review Report.

## Trends

The three major acquisition assessments selected for use in the meta-analysis contained the same symptoms, rising costs, delayed schedules, and challenges with technical performance. These symptoms, contained in each of the assessments, are the product of an acquisition system that has experienced numerous problems and failed reform efforts over the past half century. They have been and continue to be the fuel for constant acquisition reform efforts. Each assessment contained problems unique to the time, but many of the problems are present during all three assessments. This shows an inability to implement initiatives to remove the problems and improve the symptoms that have plagued the acquisition of major weapon systems over the past half century.

Figure 3 shows the symptoms and problems for each of the three major assessments below. The filled in grey boxes depict symptoms and problems that exist and are documented in each of the respective assessments. It also provides a quick visual of the trends in some of the problems that have spanned all three assessments and the entire period of this research, to include, authority, the acquisition process, cost estimates, and organization. It also shows trends in some of the problems that have spanned the last two reports, in essence the last 27 years, to include, regulations and the workforce. The first assessment by the Government Accounting Office, which was one of their first reports on acquisitions, was not as detailed as the next two assessments. The second report by the Packard Commission was the most expansive and took place over a year. The third and final report by the CRS was more focused on particular areas, but went into great detail for those selected areas. The clear similarity with all three reports is the presence of the

symptoms of an acquisition processes in need of reform, rising costs, delayed schedules, and challenges with technical performance.

If the numerous assessments and reports that have been done over the past half century, in addition to the three major assessments analyzed in this chapter, where used to populate the chart below it would look a little different. Some of these additional assessments and reports, covered in the chapter 2, Literature Review, would capture most of the problems listed in figure 3 being present at the time of each of the three major assessments reviewed and throughout the period of this research. In short, with the inclusion of the data from additional reports and assessments you would see a chart with most of the blocks populated.

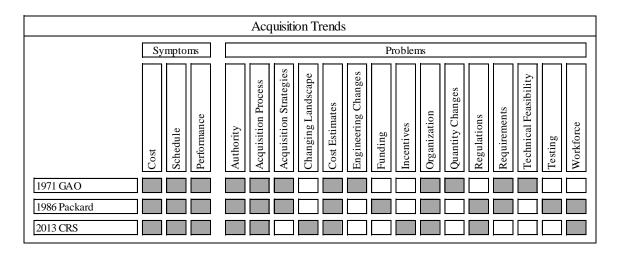


Figure 3. Trends from Three Major Acquisition Assessments

Source: Created by author.

## Answers to Secondary Research Questions

What drove the need for acquisition reform? The symptoms mentioned above, rising costs, delayed schedules, and challenges with technical performance provided the initial calls for acquisition reform from the President, Congress, and the Secretary of Defense. These symptoms continued to fuel acquisition reform throughout the entire period of this research. Finally, these symptoms, with some recent evolutions, still exist today and are fueling the latest calls for acquisition reform.

What is the history of acquisition reform? Acquisition reform has been taking place constantly for the past half century. As each day passes, reform is still being called for and implemented, and that history continues to grow. An inordinate amount of time, resources, and effort has gone into the assessment of what has plagued the acquisition of major weapon systems and the implementation of reform initiatives. Numerous factors have magnified the challenge of reforming acquisitions to include numerous changes in leadership, regulations, process, increasing technology and complexity of the weapon systems being developed, a dynamic and ever changing environment, and a constrained fiscal environment.

What are some major acquisition reform efforts? Several of the major acquisition reform efforts where covered in the chapter 2, Literature Review, to include the DoD's latest initiative, Better Buying Power 2.0. In addition, three major acquisition assessments were analyzed in this chapter, highlighting the same symptoms, and many of the same problems that have fueled a constant state of acquisition reform efforts over the past half century. Figure 4 below, by no means all inclusive, provides a highlight of some of the major acquisition reform efforts during the period this research covers.

What are the similarities and differences with the reform efforts? The three major acquisition assessments analyzed in this chapter provide a solid answer to this complex question. As previously mentioned, with the numerous amount of acquisition efforts over the past half century, more detail could be added to the analysis of trends over the past half century. The bottom line is, the current President, Congress, and Secretary of Defense are addressing many of the same problems that led their predecessors to make the initial calls for acquisition reform over a half century ago.

|      | Selected Acquisition Reform Efforts                           |
|------|---|
|      | Selected Acq distribit Resorm Enorts                          |
| 1969 | Packard Initiates   |
| 1970 | Blue Ribbon Defense Panel                                     |
| 1971 | GAO Acquisition of Major Weapon Systems                       |
| 1971 | Blue Ribbon Defense Panel                                     |
| 1972 | DoDD 5000.1 Commission on Government Procurement              |
| 1974 | Budget Reform Act   |
| 1978 | Defense Science Board Acquisition Cycle Task Force            |
| 1979 | Defense Resource Management Study                             |
| 1981 | Carlucci Initiatives; Defense Acquisition Improvement Program |
| 1982 | Nunn-McCurdy  |
| 1983 | Grace Commission  |
| 1984 | Joint Requirem ents Managem ent Board Established             |
| 1985 | Congress Introduced 140+ Acquisition Improvement Bills        |
| 1986 | President's Blue Ribbon Commission (Packard Commission)       |
| 1989 | Defense Management Review                                     |
| 1993 | Federal Acquisition Improvement Act                           |
| 1994 | Federal Acquisition Streaming Act                             |
| 1995 | Federal Acquisition Reform Act                                |
| 2006 | Defense Acquisition Performance Assessment                    |
| 2007 | Gansler Commission  |
| 2009 | Weapon System Acquisition Reform Act                          |
| 2010 | Better Buying Power   |
| 2012 | Better Buying Power 2.0                                       |
|      |   |
|      |   |

Figure 4. Selected Acquisition Reform Efforts

Source: Created by author.

# Summary and Conclusions

This chapter contained the detailed analysis of three acquisition assessments at different points over the half century this research covers. The analysis first highlighted problems with the acquisition of major weapon systems at the beginning of the period with a 1971 Government Accounting Office report to Congress titled *Acquisition of* 

Major Weapon Systems. The analysis then highlighted problems with the acquisition of major weapon systems at roughly the halfway point of the period, with the 1986 President's Blue Ribbon Commission on Defense Management. The analysis then highlighted problems with the acquisition of major weapon systems at the end of the period, with a 2013 CRS report titled, Twenty-five Years of Acquisition Reform: Where Do We Go From Here? After the analysis of the three assessments separately, a comparison of the three assessments was done to show similarities, differences, and trends between them. The analysis of the three assessments showed some problems have changed, but several have spanned the last half or the entire period. The chapter concluded by addressing the secondary research questions. The final chapter of this thesis will present conclusions and recommendations to the primary research question, based on the analysis and comparison of the three major acquisition assessments presented in this chapter. In addition, it will outline potential opportunities for future research, unanswered questions, and possible changes in the area of acquisition reform.

### CHAPTER 5

#### CONCLUSIONS AND RECOMMENDATIONS

After a half a century of attempting acquisition reform, the DoD and their acquisition community, leaders, and professionals find themselves working diligently to implement the latest acquisition reform effort. The DoD is at what can be debated and substantiated as the most crucial time in its history to reform the acquisition of major weapon systems. The six factors first introduced in chapter 1, judicious use of taxpayer dollars, a rapidly changing and dynamic environment, complexity of current major weapon systems, recovering from 10 years of war, the current fiscal environment, and current program performance are not an all inclusive list but effectively highlight the critically of acquisition reform today. A quote referenced earlier by Representative Mac Thornberry may communicate the importance and implications of the acquisition reform better than any other, "The weapons and equipment that are produced are too often late and over budget. Delays in getting top quality equipment into the hands of our troops can cost lives, and the overall security of our nation can be affected." 122

There has been an abundant amount of efforts at all levels over the past half century to improve the process for acquiring major weapon systems but it has still left the DoD searching for and implementing acquisition reform. Presently, that acquisition reform implementation effort comes in the form of, Better Buying Power 2.0.

This chapter will start with a brief summary of the results from the meta-analysis presented in the previous chapter. The data from that analysis, in conjunction with the

<sup>&</sup>lt;sup>122</sup>Thornberry.

data from the literature review, will be used to answer the primary research question.

Along with the answer to the primary research question, some of the factors that are currently magnifying the challenge of acquisition reform will highlighted. Next, the implications of the data and answer to the primary research question will be presented. The chapter will conclude with recommendations for future study in the area of acquisition reform guided by a recent GAO report.

The previous chapter contained an analysis of three major acquisition assessments at different points in time over the last half century. Each one of the three major acquisition assessments was analyzed separately, highlighting symptoms and problems present at the time of the report. Then an analysis was done to compare the three major assessments to highlight similarities, differences, and trends with a figure to visually show those results. After an analysis of the three major acquisition assessments, they undoubtedly share a trend in the symptoms and problems of an acquisition process in need of reform.

The three major acquisition assessments contained the same symptoms, rising costs, delayed schedules, and challenges with technical performance. These symptoms, contained in each of the assessments, are the product of an acquisition system that has experienced numerous problems and failed reform efforts over the past half century. Each assessment contained problems unique to the time, but many of the problems are present during all three assessments. As previously mentioned, this means the current President, Congress, and Secretary of Defense are addressing many of the same problems that led their predecessors to make the initial calls for acquisition reform over a half century ago. The previous chapter also answered the secondary research questions with the

information obtained during the literature review, in conjunction with the data from the meta-analysis.

# Primary Research Question

Why is the DoD still attempting to reform the process used to acquire major weapon systems after a half a century of efforts? The answer to the primary research question is complex to say the least. There are numerous conclusions that can be draw to answer this question. It is a question, which has been addressed by many well-qualified individuals and groups over the past half century. There are so many variables, not to mention branches of government, and three separate decision support systems, that factor into the process of acquiring major weapon systems and even more difficulty, reforming it. Using the meta-analysis in the previous chapter, the DoD is still addressing most of the deficiencies noted in the first major assessment that was analyzed from 1971. The problems facing the system have been relatively stable, increasing in complexity, but not a moving target. Simply put, that equates to an inability to effectively implement reform initiatives to address and overcome the deficiencies noted almost a half century ago.

A more detailed look into the answer to the primary research question takes into account some of the trends over the past half century. As stated, the meta-analysis contained in this research returns data showing many of the problems facing major weapon systems acquisition today are the same as they were a half century ago or at a minimum over 25 years ago. The data leads to the conclusion that the DoD has not been able to effectively implement reform initiatives to address and overcome the deficiencies

 $<sup>^{123}</sup>$ Comptroller General of the United States, *Acquisition of Major Weapon Systems*.

noted almost a half century ago. The data does not show how the complexity and difficulty has increased over the research period. Although many of the problems with the acquisition process remain the same, the increasing complexity of weapon systems coupled with a dynamic and rapidly changing security environment have dramatically increased the task of acquisition reform. The data also does not communicate that many of the challenges, such as three separate decision support systems that do not always line up, are still in place. The need for a culture within the government that embraces and supports change. The answer to the primary research question, based on the data from the meta-analysis, is straightforward but the solution to acquisition reform is not.

The inability to implement acquisition reform initiatives is captured with an oftencited quote form Deputy Secretary of Defense, David Packard, "We all know what needs to be done. The question is why aren't we doing it?" Many current assessments point to one reason in particular for the inability to implement acquisition reform, incentives. Dr. Fox provides the following explanation in his book, "There is little doubt that the acquisition reforms produce limited, positive effects because they have not changed the basic incentives or pressures that drive the behavior of the participants in the acquisition process." The GAO office addressed incentives in a recent report as well. "The acquisition of weapons is much more complex than policy describes and involves very basic and strongly reinforced incentives to field weapons." A third and final reference to the importance of incentives is from a recent CRS report. "Many analysts argue that

<sup>&</sup>lt;sup>124</sup>Fox, 191.

 $<sup>^{125}\</sup>mbox{Government}$  Accountability Office, Defense Acquisitions: Where Should Reform Aim Next?

even with a sufficiently robust, highly trained, capable workforce, the right incentives must be in place." The implementation of these incentives and the removal of the disincentives that currently exist will be difficult and take time. The proper incentives, coupled with changes to the decision support systems and a culture that embraces and supports reform, has not been present and has prevented the DoD from reforming the acquisition process. If reform is going to be successful, these three things must take place and be present.

# **Implications**

If the current round of acquisition reform is not successful and continues the trend of the past half century there could be significant implications. The DoD acquisition community will not be able to address and successfully manage the six factors outlined in chapter 1, judicious use of taxpayer dollars, a rapidly changing and dynamic environment, complexity of current major weapon systems, recovering from 10 years of war, the current fiscal environment, and current program performance. A previously referenced quote brings home the significance, "The weapons and equipment that are produced are too often late and over budget. Delays in getting top quality equipment into the hands of our troops can cost lives, and the overall security of our nation can be affected". 127

<sup>&</sup>lt;sup>126</sup>Schwartz, Twenty-five Years of Acquisition Reform: Where Do We Go from Here?

<sup>&</sup>lt;sup>127</sup>Thornberry.

# Recommendations

The acquisition of major weapon systems and associated reform efforts is a vast and complex topic, that has seen no break in a half century, and it leaves many unanswered questions and presents many opportunities for further study. As highlighted in chapter 2, even amidst one of the most complex acquisition reform efforts to date, Better Buying Power 2.0, government leaders are still searching for solutions to the problems that have plagued acquisition of major weapon systems for the past half century. This communicates they are not content with the latest reform imitative or are skeptical in general with acquisition reform because of the track record over the past half century.

To address future recommendations, three assessments from a recent GAO report are presented. In an October 2013, report titled, *Defense Acquisitions: Where Should Reform Aim Next?*<sup>128</sup> GAO provides three separate assessments that highlight recommendations and opportunities for future research. First, an assessment on the current state of acquisitions and what is needed. Second, current initiatives and the potential they hold, and third, recommendations for the future approaches to acquisitions to alleviate problems that have plagued the system previously. Below is their assessment on the current state of major weapon system acquisitions and what is needed:

The Department of Defense (DoD) must get better outcomes from its weapon system investments, which in recent years have totaled around \$1.5 trillion or more. Recently, there have been some improvements, owing in part to reforms. For example, cost growth declined between 2011 and 2012 and a number of programs also improved their buying power and finding efficiencies in development or production and requirements changes. Still, cost and schedule

 $<sup>^{128}\</sup>mbox{Government}$  Accountability Office, Defense Acquisitions: Where Should Reform Aim Next?

growth remain significant; 39 percent of fiscal 2012 programs have had unit cost growth of 25 percent or more. 129

With the extensive time it takes to implement reform, it is too early to tell if the latest acquisition reform initiatives will be successful. A lot of hard work and dedication has been put forth to ensure the latest efforts will reverse the trend of acquisition reform over the past half century. The second GAO assessment below is on the latest acquisition reform initiatives and the potential they hold:

The Weapons Systems Acquisition Reform Act of 2009 and DoD's recent "Better Buying Power" initiatives introduced significant changes that, when fully implemented, should further strengthen practices that can lead to successful acquisitions. GAO has also made numerous recommendations to improve the acquisitions process based on its extensive work in the area. While recent reforms have benefited individual programs, it is premature to say there is a trend or a corner has been turned. The reforms still face implementation challenges and have not yet been institutionalized within the services. 130

There are many things that can be modified as the DoD acquisition community moves forward. In the past few years many changes have been made in the acquisition of major weapon systems, some already showing positive results, and some that time will tell. "Recently, there have been some improvements, owing in part to reforms. For example, cost growth declined between 2011 and 2012 and a number of programs also improved their buying power by finding efficiencies in development or production and requirements changes." The third GAO assessment provides recommendations on where reform efforts should focus next, based on their extensive work in weapon system acquisitions:

<sup>&</sup>lt;sup>129</sup>Ibid.

<sup>130</sup> Ibid.

<sup>&</sup>lt;sup>131</sup>Ibid.

At the start of new programs, using funding decisions to reinforce desirable principles such as well-informed acquisition strategies. Identifying significant risks up front and resourcing them. Exploring ways to align budget decisions and program decisions more closely. Attracting, training, and retaining acquisition staff and managers so that they are both empowered and accountable for program outcomes.<sup>132</sup>

Acquisition Reform in one form or another has been constantly taking place for over a half century. The data concludes that the DoD has not been able to effectively implement reform initiatives to address and overcome the deficiencies noted almost a half century ago. This has always been an enormously complex and challenging task but that complexity and challenge grows with each day that passes. The six factors first introduced in chapter 1, judicious use of taxpayer dollars, a rapidly changing and dynamic environment, complexity of current major weapon systems, recovering from 10 years of war, the current fiscal environment, and current program performance highlight the significance and need for acquisition reform more than ever in our history. The President, Congress, and DoD are working harder than ever to make the next round of reform initiatives successful and end the half century of reform. This must include modifying the decision support systems, the correct type of incentives, and a culture that embraces and supports the changes.

| <sup>132</sup> Ibid. |  |
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